ERCB Energy Resources Conservation Board

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Directive 024

Revised edition September 15, 2009

Large Facility Liability Management Program (LFP)

The Energy Resources Conservation Board (ERCB/Board) has approved this directive on September 15, 2009.

Dan McFadyen
Chairman

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1 Purpose of the Large Facility Liability Management Program

The purpose of the Energy Resources Conservation Board's (ERCB's) Large Facility Liability Management Program (LFP), as set out in this directive, is to

- prevent the costs to suspend, abandon, remediate, and reclaim a facility in the LFP from being borne by the public of Alberta if a licensee becomes defunct, and
- minimize the risk to the Orphan Fund posed by the unfunded liability of facilities in the program.

2 What's New in This Edition

This directive, dated September 15, 2009, incorporates the expansion of the ERCB's Liability Management Rating (LMR) assessment resulting from the ERCB's implementation of the Oilfield Waste Liability (OWL) Program. This edition replaces the October 1, 2008, edition of *Directive 024*.

3 Scope of the LFP

The LFP applies to historic, current, and future licensed (new or amended) sulphur recovery gas plants, standalone straddle plants, and in situ oil sands central processing facilities having an ERCB-approved design capacity of 5000 cubic metres per day (m^3/d) or greater. A description of the ERCB-approved facility types included in the LFP is in Appendix 1. The ERCB will annually update the list of facilities included in this program on its Web site www.ercb.ca.

4 Working Interest Participant Responsibilities

The LFP applies to all working interest participants (WIPs) in a facility included in the program; however, the program is administered through the licensee of the facility.

A WIP is required to pay its proportionate share of the cost to suspend, abandon, remediate, and reclaim a facility included in the LFP. The operation of Section 30 of the *Oil and Gas Conservation Act* does not reduce the obligations of a WIP to assume the costs of a defunct licensee or other defunct WIP under other legislation (including the *Environmental Protection and Enhancement Act)*, regulation, or legal agreements (such as construction, ownership, and operation agreements), nor does it provide protection to a WIP against actions that may be taken to recover a defunct licensee's share of costs to suspend, abandon, remediate, and reclaim an orphan facility included in the LFP.

WIPs are responsible for their proportionate share of any LFP orphan levy assessed on large facilities by the ERCB and paid by the licensee.

WIPs are responsible for their proportionate share of any mandatory facility-dedicated security deposit required by this program and paid by the licensee. Additional information is provided in Section 8: Facility-Dedicated Security Deposits.

5 Definitions

For the purpose of this program:

- **Eligible producer licensee** is a licensee whose deemed assets from production volumes reported to the Petroleum Registry of Alberta (PRA) have fallen below its deemed liabilities in the Licensee Liability Rating (LLR) Program and is therefore eligible to

have any deemed assets from midstream activities in the LLR, LFP, and OWL programs included in its LMR deemed asset calculation.

- **Large Facility Liability Management Program (LFP)** is the liability management program governing the large upstream oil and gas facilities specified in Appendix 1 of *Directive 024.*
- **Liability assessment** is an assessment conducted by a licensee to estimate the cost to suspend, abandon, remediate, and reclaim a site.
- **Liability Management Rating (LMR)** is the ratio of a licensee's eligible deemed assets in the LFP, LLR, and OWL programs to its deemed liabilities in those programs.
- **Licensee Liability Rating (LLR) Program** is the liability management program governing most conventional upstream oil and gas wells, facilities, and pipelines, as specified in Appendix 1 of *Directive 006: Licensee Liability Rating (LLR) Program and Licence Transfer Process.*
- **Midstream activity** is the handling of third-party volumes for a fee or other consideration by a facility included in the LFP and could include transporting, compressing, processing, marketing, and other directly related processes.
- **Netback** is earnings before interest, taxes, and depreciation and is equal to gross margin (midstream revenue less cost of goods sold) less direct operating costs and applicable general and administrative expenses.
- **Nonproducer licensee (NPL)** is a licensee whose deemed assets from midstream activities in the LLR, LFP, and OWL programs exceed its deemed assets from production volumes reported to the PRA or a licensee having only facilities in the LFP or OWL programs.
- **Oilfield Waste Liability (OWL) Program** is the liability management program governing oilfield waste management facilities specified in Appendix 1 of *Directive 075: Oilfield Waste Liability (OWL) Program.*
- **Producer licensee** is a licensee whose deemed assets from production volumes reported to the PRA exceed its deemed liabilities in the LLR, LFP, and OWL programs.
- **Proportionate share,** with respect to a WIP, is the percentage share equal to the participant's undivided interest in the facility.
- **Site-specific liability** is the estimated cost to suspend, abandon, remediate, and reclaim a facility in the LFP.

6 Liability Management Rating Assessment

The ERCB's LMR assessment is a comparison of a licensee's deemed assets in the LFP, LLR, and OWL programs to its deemed liabilities in these programs. Any security deposit provided to the ERCB as a result of the operation of these programs is considered in determining a licensee's "security-adjusted" LMR. The LMR assessment is designed to assess a licensee's ability to address its suspension, abandonment, remediation, and reclamation liabilities. This assessment is conducted monthly and on receipt of a licence transfer application in which the licensee is the transferor or transferee. The determination of deemed assets and deemed liabilities in each of these programs is documented in

- this directive for licences included in the LFP;
- *Directive 006* and *Directive 011: Licensee Liability Rating (LLR) Program—Updated Industry Parameters and Liability Costs*, for licences included in the LLR Program;
- *Directive 075*, for licences and approvals included in the OWL Program; and
- *Directive 001: Requirements for Site-Specific Liability Assessments in Support of the EUB's Liability Management Programs*, for licensees required to provide a site-specific liability cost estimate.

If a licensee's deemed liabilities in these three programs exceed its deemed assets in these programs plus any previously provided security deposits (including facility-specific security deposits), it has a security-adjusted LMR below 1.00 and is required to provide the ERCB with a security deposit for the difference.

A security deposit determined as a result of an LMR assessment is required to minimize the possibility of the licensee's suspension, abandonment, remediation, and reclamation costs being borne by the Orphan Fund.

For LMR calculation purposes, 100 per cent of the deemed assets and 100 per cent of the deemed liabilities of a well or facility for which it is the licensee are attributed to the licensee.

7 LMR Security Deposit Requirements

The ERCB conducts its LMR assessment on the first Saturday of each month, following receipt of updated production information from the PRA.

A licensee required to provide the ERCB with a security deposit as a result of a monthly or transfer LMR assessment will be advised in writing of the amount of the security deposit required and the date by which the security deposit must be received. The date specified for payment of a monthly LMR assessment is ordinarily the Friday before the first Saturday of the following month.

If a licensee in the LLR, LFP, or OWL programs becomes defunct:

- any non-facility-specific LMR security deposit held by the ERCB will be allocated to address its unfunded suspension, abandonment, remediation, or reclamation liability in each program in which it had liability in proportion to its deemed liability in each program; and
- any facility-specific security deposit held by the ERCB will be applied first to the facility for which it was collected, with any surplus being available for any unfunded liability held by the licensee.

The ERCB's requirements with respect to the form, use, and refund of security deposits provided under a liability management program are in *Directive 068: ERCB Security Deposits*.

A licensee can view information on the type and amount of any security deposit it has with the ERCB on the Digital Data Submission (DDS)/Reports/Liability Rating page on the ERCB Web site www.ercb.ca using its DDS Logon ID and password.

8 Facility-Dedicated Security Deposits

8.1 Mandatory Facility-Dedicated Security Deposits

On the written request of a licensee of a facility in the LFP or on the written request of a WIP or WIPs representing 50 per cent or more of the working interest participation in a facility included in the LFP, the ERCB will require the licensee of the facility to provide a security deposit to the ERCB meeting the requirements of *Directive 068* for the full amount of the deemed liability of that facility in accordance with the schedule below.

A written request from a licensee or WIP(s) representing 50 per cent or more of the working interest participation in a facility to have the ERCB require a mandatory facility-dedicated deposit for the facility,

- if received by the ERCB before November 1 of any year, will require the licensee to provide the mandatory security deposit in three equal annual payments due January 1 in each of the following three years,

  or

- if received by the ERCB on or after November 1 of any year, will require the licensee to provide the mandatory security deposit in three equal annual payments due January 1 in each of the three years commencing one year after the following January.

8.2 Voluntary Facility-Dedicated Security Deposits

A licensee of a facility in the LFP may at any time voluntarily provide the ERCB with a facility-dedicated security deposit in any amount.

8.3 Administration of Facility-Dedicated Security Deposits

A facility-dedicated security deposit (both mandatory and voluntary) will be held in the name of the licensee but attached to the licence of the facility for which it was provided. For LMR monthly assessment and licence transfer assessment purposes, a facility-dedicated security deposit is added to the licensee's deemed assets to provide a security-adjusted (resultant) LMR.

A facility-dedicated deposit is available to the ERCB, the Alberta Oil and Gas Orphan Abandonment and Reclamation Association (Orphan Well Association [OWA]), Alberta Environment, and Sustainable Resource Development to address suspension, abandonment, remediation, and reclamation issues regarding the facility for which the deposit was collected.

A facility-dedicated security deposit does not reduce the licensee's liability for the purpose of calculating its share of a large facility orphan levy.

8.4 Refund of Facility-Dedicated Security Deposits

If the requirement for a facility-dedicated security deposit was implemented at the request of the licensee, the ERCB will refund the deposit to the licensee of that facility on receipt of a written request from the licensee.

If the requirement for a facility-dedicated security deposit was implemented at the request of a WIP or WIPs representing 50 per cent or more of the working interest participation in a facility, the ERCB will refund the deposit to the licensee of that facility on receipt of a

written request from a WIP or WIPs representing 50 per cent or more of the working interest participation in a facility.

If a facility-dedicated security deposit was voluntarily provided by a licensee, the ERCB will refund the deposit to the licensee of that facility on receipt of a written request from the licensee.

A facility-dedicated security deposit will not be refunded to the licensee placing the deposit on a transfer of the facility licence unless the new licensee either replaces the required security deposit or advises the ERCB that a facility-dedicated security deposit is no longer required.

The ERCB will not refund any amount of a facility-dedicated security deposit if the licensee's LMR is below 1.00 and the required LMR security deposit has not been received by the ERCB.

9 Orphan Program and Fund

The Orphan Fund will pay a licensee's share of the costs to suspend, abandon, remediate, and reclaim a facility included in the LFP if a licensee becomes defunct; it will also pay the defunct licensee's proportionate share of these costs if a WIP in that facility subsequently becomes defunct.

The LFP is fully funded by the owners of the facilities included in the LFP through a levy collected, as required, from the licensees of the facilities by the ERCB.

The Orphan Fund is administered by the Alberta Oil and Gas Orphan Abandonment and Reclamation Association (OWA), a nonprofit society incorporated under the *Societies Act* on March 20, 2001.

9.1 Orphan Site

A facility included in the LFP Program is eligible to be declared an orphan when the licensee of that facility becomes defunct. The ERCB will designate a facility meeting this criterion as an orphan, in accordance with Section 70(2) of the *Oil and Gas Conservation Act*. The facility will be an orphan for all aspects of this program: suspension, abandonment, remediation, and reclamation.

A site that has received a reclamation certificate or an alternative remediation and reclamation endpoint acceptable to Alberta Environment will not be declared an orphan.

9.2 LFP Orphan Levy Base and Formula

The deemed liability of facilities in the LFP will be tracked separately from the deemed liability of wells, facilities, and designated pipeline problem sites in the LLR and OWL programs.

If an LFP orphan levy is required, the levy will be based solely on the deemed liability of facilities included in the LFP and will be apportioned among all non-defunct licensees having a facility subject to the LFP.

A licensee in the LFP is responsible for its percentage of any LFP orphan levy calculated as the sum of the deemed liability of facilities in the program for which it is the licensee to the

total liability of all facilities in the LFP less the liability of any facilities licensed to a defunct licensee as of the date the levy is calculated, in accordance with the following formula:

$$\text{Facility's share of levy} = \frac{A}{B} \times \text{required levy amount}$$

where

- A is the facility's deemed liability on the date the levy is calculated, determined in accordance with this directive, and
- B is the deemed liability of all facilities in the LFP less the liability of any facilities licensed to a defunct licensee on the date the levy is calculated, determined in accordance with this directive.

10 LFP Administration

10.1 Program Operation

Detailed information on the operation of the LFP and its licence transfer requirements is in Appendices 2 through 5.

10.2 Confidentiality

The ERCB will hold as confidential the information submitted to or acquired by the ERCB for the purpose of conducting an LMR assessment. The ERCB will post only the licensee's security-adjusted LMR on its Web site.

10.3 Noncompliance

A licensee that fails to comply with a requirement of the LFP is in noncompliance and is subject to the enforcement provisions of *Directive 019: ERCB Compliance Assurance—Enforcement.* A list of risk-assessed noncompliances is available on the ERCB Web site www.ercb.ca/Industry Zone : Compliance and Enforcement : Risk Assessed Noncompliance.

10.4 Limited Look Back

If a licensee of a facility in the LFP becomes defunct within 24 months of a transfer of the licence for that facility, the ERCB will review the circumstances surrounding that transfer. If the ERCB determines that the transfer represented an attempt to transfer the abandonment and reclamation liability of the facility without a corresponding transfer of asset value, the ERCB may designate the prior licensee of that facility as the current licensee and working interest participant of that facility, in accordance with Section 31(1) of the *Oil and Gas Conservation Act.* A licensee so designated is responsible for its proportionate share of that facility's suspension, abandonment, remediation, and reclamation liability.

10.5 Program Review

The ERCB will continually monitor the LFP to ensure that it is achieving its desired outcome and is protecting both the public interest and the Orphan Fund.

10.6 LFP Resources

Inquiries regarding the requirements of this directive or any ERCB liability management program should be directed by e-mail to LiabilityManagement@ercb.ca or by phone to the Liability Management Group's help line at 403-297-3113.

Appendix 1 Facility Types Included in and Excluded from the LFP Program

1 LFP and Orphan Fund Inclusions

The following large upstream oil and gas facility types are included in the LFP and are protected by the Orphan Fund:

- current, future (new or amended licences), and historic sulphur recovery gas plants that at any time produced elemental sulphur, but excluding those sites licensed under *Directive 056: Energy Development Applications and Schedules* as a Facility Category Type 300
- current, future (new or amended licences), and historic standalone straddle plants
- current, future (new or amended licences), and historic in situ oil sands central processing facilities having an approved design capacity of 5000 m^3/d or greater
- current, future (new or amended licences), and historic oil sands upgraders integrated into an in situ oil sands central processing facility having an approved design capacity of 5000 m^3/d or greater

2 LFP and Orphan Fund Exclusions

Facility types that would otherwise be included in the LFP but that are owned by the federal or provincial government are excluded from the LFP and from protection by the Orphan Fund.

Appendix 2 Licence Transfer Process

1 Application Requirements

A licensee proposing to transfer a licence for a facility subject to the LFP must meet all licence transfer requirements of *Directive 006.* In addition to those requirements,

- a licence for a facility subject to the LFP may be included with any other licence(s) in a licence transfer application;
- a facility subject to the LFP must have a site-specific liability assessment meeting the requirements of *Directive 001* accepted by the ERCB and a cost estimate based on that assessment completed within the last calendar year to be eligible for transfer; and
- a facility subject to the LFP that requires an updated liability assessment as a result of a cumulative increase in liability must have the required assessment received and accepted by the ERCB to be eligible for transfer (see Appendix 5 for additional information).

2 Deemed Asset on Transfer

If a facility in the LFP is licensed to an NPL or an eligible producer licensee (the facility has an approved netback) and the facility is being transferred to another NPL or eligible producer licensee, the existing approved facility netback will be used by the ERCB in determining the facility's deemed asset in the transfer LMR assessment.

If a facility in the LFP is licensed to a producer licensee (the facility does not have an approved netback) and the facility is being transferred to an NPL or an eligible producer licensee, the transferee must provide the ERCB with the facility's netback on a completed Facility Netback Calculation Form (Appendix 6) and the documentation required to support the netback. If accepted by the ERCB, the netback will be used by the ERCB in determining the facility's deemed asset in the transfer LMR assessment.

The netback used by the ERCB in determining the deemed asset of a facility in a licence transfer application will be used in subsequent monthly or transfer LMR assessments until the new licensee provides the ERCB with a netback based on its corporate year-end and that netback is accepted by the ERCB. The new licensee must provide the ERCB with a completed Facility Netback Calculation Form and the documentation required to support the netback for the transferred facility no later than 6 months following its corporate year-end.

3 Deemed Liability on Transfer

The ERCB will use the existing approved cost estimate as the deemed liability for a facility in the LFP that is being transferred.

4 Licence Transfer Review Process

On receipt of a licence transfer application, the ERCB will conduct an LMR assessment of both the transferor and the transferee. The licence transfer LMR assessment is conducted as if the transfer were approved (post-transfer LMR).

5 Licence Transfer Security Deposit Requirements

If both the transferor and the transferee have a post-transfer LMR equal to or exceeding 1.00, a security deposit will not be required from either party.

If either the transferor or the transferee has a post-transfer LMR below 1.00, a security deposit for the difference between its deemed liabilities and its deemed assets plus any previously provided security deposits (including facility-specific security deposits) must be received by the ERCB from the party whose post-transfer LMR is below 1.00 before the licence transfer application is approved.

6 Mandatory Facility-Dedicated Security Deposit

If a licence for a facility in the LFP and for which a mandatory facility-dedicated security deposit is held by the ERCB is being transferred, the transferee must provide the ERCB with either

- a replacement facility-dedicated security deposit for the full amount of the deemed liability of the facility, or
- a written statement confirming that the facility-dedicated security deposit is no longer required.

7 Voluntary Facility-Dedicated Security Deposit

If a licence for a facility in the LFP and for which a voluntary facility-dedicated security deposit is held by the ERCB is being transferred, the transferee may request a refund of the deposit. The ERCB will refund a voluntary facility-dedicated security deposit on receipt of a written request from the licensee, provided that the licensee is otherwise compliant with ERCB liability management program security deposit requirements.

Appendix 3 LMR Formula

1 Calculation of LMR Rating

The following LMR formula is applicable to NPL and eligible producer licensees in the LFP:

$$\text{LMR} = \frac{\text{DA in LFP} + \text{DA in LLR (if any)} + \text{DA in OWL (if any)}}{\text{DL in LFP} + \text{DL in LLR (if any)} + \text{DL in OWL (if any)}}$$

The following LMR formula is applicable to producer licensees in the LFP:

$$\text{LMR} = \frac{\text{DA in LLR}}{\text{DL in LFP} + \text{DL in LLR} + \text{DL in OWL (if any)}}$$

where
DA = deemed assets
DL = deemed liabilities

The calculation of a licensee's deemed assets and deemed liabilities in the LFP is detailed in Appendix 4: Deemed Assets and Appendix 5: Deemed Liabilities.

2 Calculation of Facility-Specific Rating

The following formula is used to determine facility-specific ratings in the LFP Program:

$$\text{NPL Facility-Specific Liability Rating} = \frac{\text{Deemed asset of facility (determined by Appendix 4)}}{\text{Deemed liability of facility (determined by Appendix 5)}}$$

Appendix 4 Deemed Assets

1 LMR Deemed Asset

Producer Licensee

For LMR assessment purposes, the deemed asset of a producer licensee is the value of its oil, bitumen, and gas production reported to the PRA. A producer licensee's deemed asset is calculated in accordance with Appendix 5 of *Directive 006*.

A producer licensee is not entitled to calculate a deemed asset for its facilities included in the LFP.

Eligible Producer Licensees

For LMR assessment purposes, the deemed asset of an eligible producer licensee is the sum of its deemed assets in the LLR Program (determined in accordance with Appendix 5 of *Directive 006),* its deemed assets in the LFP (determined in accordance with Appendix 4 of this directive) and its deemed assets (if any) in the OWL Program (determined in accordance with Appendix 4 of *Directive 075.*

An eligible producer licensee calculating the deemed assets for a facility in the LFP or OWL Program for which it is the licensee must calculate its deemed assets as specified in this appendix in the same manner as an NPL, except that only throughput of third-party volumes may be included in its calculation. An eligible producer licensee calculating a deemed asset for its midstream volumes is required to obtain an ERCB-approved netback in the same manner as an NPL.

An eligible producer licensee must provide the ERCB with the average annual percentage of total facility volume that is midstream volume at the same time as it provides its netback. This percentage will be applied to the volumes reported to the PRA for that facility to determine the licensee's eligible midstream volumes for that facility in the deemed asset calculation for the period of time covered by its approved netback.

Nonproducer Licensee Deemed Assets

For LMR assessment purposes, the deemed asset of an NPL is the sum of its deemed assets in the LFP (determined in accordance with Appendix 4 of this directive), its deemed assets (if any) in the LLR Program (determined in accordance with Appendix 5 of *Directive 006)* and its deemed assets (if any) in the OWL Program (determined in accordance with Appendix 4 of *Directive 075.*

2 LFP Deemed Asset

For LFP deemed asset calculation purposes, the deemed asset of an NPL or eligible producer licensee is the sum of the facility-specific deemed asset calculated for each facility in the LFP for which it is the licensee.

The deemed asset of each facility is determined using a facility netback provided by the licensee and accepted by the ERCB.

Each NPL and eligible producer licensee requesting a deemed asset for a facility in the LFP must provide the ERCB with a completed Facility Netback Calculation Form (Appendix 6)

and the required supporting documentation for each facility for which it is the licensee annually within 6 months of its fiscal year-end.

A facility netback accepted by the ERCB will be valid for a period not exceeding 18 months from the licensee's fiscal year-end. The licensee must provide the ERCB with an updated netback meeting the requirements of this directive for each facility annually within 6 months of its fiscal year-end.

In support of a facility netback calculation, the ERCB requires a licensee to provide a copy of (1) its annual report containing an audited financial statement for its fiscal year, or (2) an unaudited financial statement accompanied by an income tax filing for its fiscal year, and (3) any additional supporting documentation required by the ERCB. In all cases, the financial statement must be prepared in accordance with generally accepted accounting principles.

3 Facility Deemed Asset

Sulphur Recovery Gas Plant

The deemed asset of a sulphur recovery gas plant is calculated by multiplying the facility's inlet gas volume by its netback by its deemed life index:

Deemed Asset = Volume x Netback x Deemed Life Index

- *Volume* is defined as the latest 12 calendar months of plant inlet gas volume, in thousand cubic metres (10^3 m^3), reported to the PRA. A licensee (an eligible producer licensee or NPL) processing gas or oil from wells for which it is the licensee must subtract these volumes in its facility deemed asset calculation.

- *Netback* is defined as the licensee's net profit from midstream activities per unit of inlet gas volume based on the licensee's latest fiscal year and approved by the ERCB.

- *Deemed life index (sulphur recovery gas plant)* is defined as the life of the facility to two decimal places based on its throughput decline rate determined using the four most recent one-year periods to a maximum of 8.50 years.

A facility's throughput decline rate is the average rate of decline in throughput determined over the latest 5-year period (four time increments). The decline rate for a time increment is determined by subtracting the volume for a year from the volume for the previous year and dividing by the previous year's volume. The decline rate for each of the four time intervals is added together and divided by four.

Formula: Deemed Life Index (years) = $13e^{-6DR}$ to a maximum of 8.50 years

where DR = average decline rate over the latest 5 years (4 time increments): $[(V_{13\text{-}24}\text{-}V_{1\text{-}12})/ V_{13\text{-}24} + (V_{25\text{-}36}\text{-}V_{13\text{-}24})/ V_{25\text{-}36} + (V_{37\text{-}48}\text{-}V_{25\text{-}36})/ V_{37\text{-}48} + (V_{49\text{-}60}\text{-}V_{37\text{-}48})/ V_{49\text{-}60}\ ] / 4$

and where V_1 is the most recent month, V_2 is the second most recent month, etc.; $V_{1\text{-}12}$ is the sum of the volumes from the most recent month to the 12th most recent month; $V_{13\text{-}24}$ is the sum of the volumes from the 13th most recent month to the 24th most recent month, etc.

Straddle Plant

The deemed asset of a straddle plant is calculated by multiplying the facility's inlet gas volume by its netback by its deemed life index:

Deemed Asset = Volume x Netback x Deemed Life Index

- *Volume* is defined as the latest 12 calendar months of plant inlet gas volume, in $10^3 m^3$, reported to the PRA. An eligible producer licensee or NPL processing gas from wells for which it is the licensee must subtract these volumes in its facility deemed asset calculation.

- *Netback* is defined as the licensee's net profit from midstream activities per unit of inlet gas volume based on the licensee's most recent 5 fiscal years and approved by the ERCB.

- *Deemed life index (straddle plant)* is defined as the life of the facility to two decimal places based on its throughput decline rate determined using the four most recent one-year periods to a maximum of 8.50 years.

A facility's throughput decline rate is the average rate of decline in throughput determined over the latest 5-year period (four time increments). The decline rate for a time increment is determined by subtracting the volume for a year from the volume for the previous year and dividing by the previous year's volume. The decline rate for each of the four time intervals is added together and divided by four.

Formula: Years = $13e^{-6DR}$ to a maximum of 8.50 years

where DR = average decline rate over the latest 5 years (4 time increments): $[(V_{13-24}-V_{1-12})/ V_{13-24} + (V_{25-36}-V_{13-24})/ V_{25-36} + (V_{37-48}-V_{25-36})/ V_{37-48} + (V_{49-60}-V_{37-48})/ V_{49-60}\ ] / 4$

and where V_1 is the most recent month, V_2 is the second most recent month, etc.; V_{1-12} is the sum of the volumes from the most recent month to the 12th most recent month; V_{13-24} is the sum of the volumes from the 13th most recent month to the 24th most recent month, etc.

In Situ Oil Sands Processing Plants

The deemed asset of an in situ oil sands processing plant is calculated by multiplying the facility's inlet volume by its netback by its deemed life index:

Deemed Asset = Volume x Netback x Deemed Life Index

- *Volume* is defined as the latest 12 calendar months of inlet volume, in m^3, reported to the PRA. A licensee (eligible producer licensee or NPL) processing oil, gas, or bitumen from wells for which it is the licensee must subtract these volumes in its facility deemed asset calculation.

- *Netback* is defined as the licensee's net profit per unit of inlet volume processed based on the licensee's latest fiscal year and approved by the ERCB.

- *Deemed life index (in situ oil sands processing plant)* is defined as 3.00 years.

4 Facility Deemed Asset Netbacks

A licensee must submit its request for an approved netback for each facility for which it is the licensee to the ERCB on the designated Facility Netback Calculation Form (Appendix 6), together with all required supporting documentation annually and in accordance with a schedule approved by the ERCB. A licensee is required to provide the financial information required by the ERCB to verify a netback calculation.

A licensee must submit a request for approval of a facility's new netback 30 days prior to the expiry of the previous netback. Failure to submit or to obtain ERCB approval of a facility's netback will result in that facility's netback being set at 0.00 and the loss of the deemed asset value of the facility until such time as the licensee provides a netback acceptable to the ERCB for the facility.

The ERCB may at any time conduct an audit of a licensee facility netback or midstream volume determinations.

5 Financial Security as an Alternative to Providing Facility Netback Information

A licensee not prepared to provide the financial information required by the ERCB to calculate a deemed asset for a facility must provide the ERCB with a security deposit equal to 100 per cent of the deemed liability of that facility.

Appendix 5 Deemed Liabilities

1 Initial Deemed Liability

A licensee's deemed liability in the LFP is the sum of its ERCB-approved site-specific cost estimates to suspend, abandon, remediate, and reclaim all facilities included in the program for which it is the licensee. All cost estimates must be the total undiscounted current-day estimates for suspension, abandonment, remediation, and reclamation.

For deemed liability calculation purposes, site-specific liability cost estimates must be based on meeting ERCB suspension and abandonment requirements and Alberta Environment's remediation and reclamation certification requirements.

All site-specific cost estimates must be submitted on the ERCB's Facility Liability Declaration Form (Appendix 7), and the form must also identify any seller-retained liability.

New Facilities

A party proposing to obtain a licence for a new facility that would be included in the LFP must obtain ERCB approval of its liability cost estimate based on a site-specific liability assessment that fully meets the requirements of *Directive 001* and must have an LMR equal to or greater than 1.00 before the ERCB will approve the proposed new facility application.

Existing Facilities Commencing Sulphur Recovery

A licensee of an existing gas plant proposing to amend its licence to permit sulphur recovery is required to obtain ERCB approval of its liability cost estimate for that facility based on a Type A site-specific liability assessment that fully meets the requirements of *Directive 001* and must have an LMR equal to or greater than 1.00 before the ERCB will approve the proposed amendment or new facility application.

Licensees are reminded that a facility subject to the LFP is not eligible for transfer unless the facility has a Type A liability assessment accepted by the ERCB.

2 Updating Liability Assessments

A licensee must provide the ERCB with an updated liability cost estimate based on a site-specific liability assessment meeting Canadian Institute of Chartered Accountants (CICA) standards for each facility in the LFP for which it is the licensee annually and within 6 months of its fiscal year-end.

The ERCB may require a licensee to provide an updated liability cost estimate based on a site-specific liability assessment conducted according to *Directive 001* if it considers that appropriate. When requested by the ERCB, a licensee must provide a copy of the complete site-specific liability assessment documentation required by *Directive 001* within 30 days of the request.

A licensee may provide the ERCB with an updated liability cost estimate based on a site-specific liability assessment anytime it wishes the deemed liability of a facility to be updated.

3 Deemed Liability Calculation

The deemed liability of a facility is determined by multiplying its total facility liability estimate, provided on the Facility Liability Declaration Form (Appendix 7), by the facility's present value salvage (PVS) factor.

PVS Factor

The PVS for all facilities in the LFP is 1.0.

Deemed Liability of a New Facility

A newly licensed facility in the LFP will not have its deemed site liability included in its LMR calculation until the earlier of

- 60 calendar months from its facility licence approval date,
- first throughput reported to the PRA,
- a transfer of the facility licence to another party, or
- facility abandonment.

4 ERCB Review of Liability Cost Estimates and Site-Specific Liability Assessments

The ERCB will review all site-specific cost estimates and may conduct a detailed technical review of the site-specific liability assessment on which the estimate was based. When requested by the ERCB, a licensee must provide the site-specific liability assessment documentation specified in *Directive 001* within 30 days, unless otherwise specified by the ERCB.

If any deficiencies are identified by the ERCB, the licensee may be required to

- provide specified additional information, or
- conduct an additional site investigation to address identified issues or to provide a better estimate of associated costs.

A licensee must address identified deficiencies within the time specified by the ERCB.

5 Change in Liability

Within 60 days of a licensee becoming aware of a cumulative increase in estimated liability equal to or in excess of either $2 million or 20 per cent of a facility's current liability, the licensee must provide the ERCB with either

- an updated liability cost estimate, or
- a report indicating the nature and timing of an assessment to determine the increase in a facility's estimated liability.

6 Facility Abandonment Notification

A licensee must notify the ERCB within 30 days of the completion of the abandonment of a facility included in the LFP through the electronic submission of an abandonment notification form using the ERCB's Digital Data Submission (DDS) system.

Appendix 6 Facility Netback Calculation Form

ERCB Energy Resources Conservation Board

Facility Netback Calculation Form

Part A: Corporate Reconciliation

Date of completion _____

Licensee name _____

ERCB four-digit company code _____ Licensee year-end _____

	LLR Program	LFP	OWL Program	Other revenue or expense	Total for company
Revenue					
Operating costs					
Specific general and administrative costs					
Net revenue					

Part B: Facility Netback Calculation for the _____ Program

	Facility 1	Facility 2	Facility 3	Facility 4	Total
Facility ERCB licence or waste management approval number					
Facility type					
Licensee's percentage ownership of facility					
Revenue					
Operating costs					
Specific general and administrative costs					
Net revenue					
NPL volumes (m^3 or $10^3 m^3$)					
Netback ($/$m^3$ or $/$10^3 m^3$)					

The signature below certifies that the information contained within is complete and accurate.

Name (printed) _____

Position _____

Signature of corporate signing officer _____

See the following page for instructions on how to complete this form.

Completing the Netback Calculation Form

- The ERCB must be able to clearly track the financial information provided on the Facility Netback Calculation Form back to the financial statements provided. An in-house profit-and-loss statement and/or an explanation of the methodology used to come up with the entries on the Facility Netback Calculation Form may be required.
- All entries reported on the Facility Netback Calculation Form must correspond to the same accounting time period as the company's corporate year-end financial statements.
- Excluded revenues are to be recorded in the "Other revenue or expense" column to reconcile totals with the company's corporate year-end financial statements.
- If the licensee's net revenue is negative for all the facilities that would normally be recorded on the Facility Netback Calculation Form, no netback submission is required, as an asset value will not be generated for a negative net revenue value.
- For the purpose of the netback submission, net revenue refers to earnings before interest, taxes, and depreciation and is equal to gross margin (midstream revenue less cost of goods sold) less direct operating costs and applicable general and administrative costs.
- The netback under liability management programs is intended to represent the net revenue value that a similar midstream licensee could achieve if it operated the same midstream facility. Therefore, revenue and expense items that would not be typical of facility operations should be excluded from the netback calculations.
- "Corporate Officer" is an position listed in the corporation's bylaws and ordinarily includes president, vice president, treasurer, and secretary.

NPL Volumes

- *Directive 006* (LLR) and *Directive 024* (LFP) – "NPL volumes" refers to the total received inlet volumes reported to the PRA against the reporting facility ID codes attached to your facility licences. Report only third-party volumes from which you generate revenue. Volumes from a licensee's own production are not to be included.
- *Directive 075* (OWL) – "NPL volumes" refers to the volume of material that has been removed from a facility and/or disposed of permanently at a facility via deep well disposal that was initially received as industrial or oilfield waste.

Large Facility Program (LFP)

- *Directive 024* LFP submissions for straddle plants require a five-year average netback. List each of the five years separately using the format in Part B. Submit the corresponding financial documentation for the most recent year-end. If five years' worth of financial information is not available for a facility, the ERCB will use the average for the number of years that a licensee has owned the facility until such time as a five-year average is available.

Oilfield Waste Liability (OWL) Program

- The first waste management (WM) facility that receives the waste volumes is the facility that is to record the revenue for netback calculation purposes. The volumes reported must correspond to the same accounting period as the licensee's most recent year-end.
- Under the PRA, produced water going to a waste plant (WP) gets reported to the WP. Therefore, for those instances where the produced water is reported to a WP, the first WM facility that receives the produced water is the facility that is to record the volume and corresponding facility-specific netback for those volumes. The netback would not be reflected in the LLR Program in these instances.

Direct any questions by e-mail to LiabilityManagement@ercb.ca or to the Liability Management Group's help line 403-297-3113.

Appendix 7 Facility Liability Declaration Form

ERCB Energy Resources Conservation Board

Facility Liability Declaration Form

Licensee name: _____

Facility location: _____ **Facility name:** _____

Facility ERCB licence number: F_____

Facility type: ☐ Sulphur recovery plant ☐ Straddle plant ☐ In situ oil sands central processing facility
☐ Historical sulphur recovery plant (currently operating as: _____ [facility type])

Date of Assessment: _____

Retained Liability: ☐ Liability retained by previous licensee through contract (describe on attached sheet).

Each cost estimate reported must be the total undiscounted current-day estimate for complete asset retirement obligations (suspension, abandonment, remediation, and reclamation).

Suspension and Abandonment (purging, dismantlement, and demolition costs):

Cost estimate: _____

Basis for estimate:

- ☐ fully meets *Directive 001,*
- ☐ based on a site-specific suspension and abandonment cost estimating model,
- ☐ based on preliminary suspension and abandonment cost estimates, or
- ☐ CICA ("accounting estimate"/Best Engineering).

Remediation (soil and groundwater):

Cost estimate: _____

Basis for estimate:

- ☐ fully meets *Directive 001,*
- ☐ based on a Phase II environmental site assessment,
- ☐ based on Phase I environmental site assessment, or
- ☐ CICA ("accounting estimate"/Best Engineering).

Surface Reclamation:

Cost estimate: _____

Basis for estimate:

- ☐ fully meets *Directive 001,*
- ☐ based on a Phase II environmental site assessment,
- ☐ based on Phase I environmental site assessment, or
- ☐ CICA ("accounting estimate"/Best Engineering).

Total facility liability estimate: _____

Note: If your company is only able to provide the total facility liability estimate and has not done a detailed assessment of suspension, abandonment, remediation, or reclamation costs, please provide the basis for your estimate:

_____

_____

_____

The signature below certifies that the information contained within is complete and accurate based on the best available information.

Signature of senior corporate officer or director _____

Position and professional designation _____

Date_____